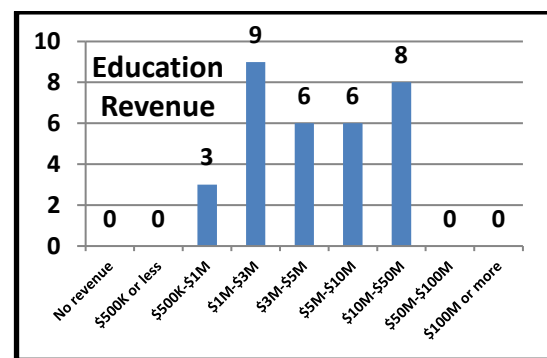
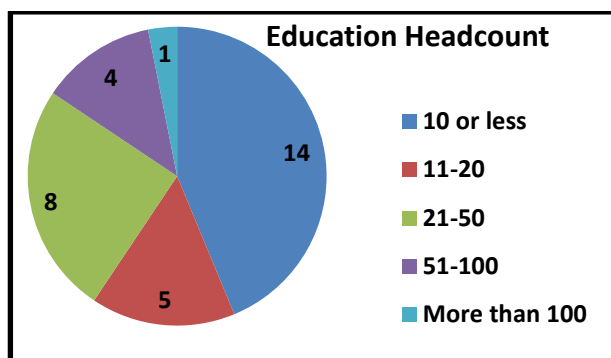
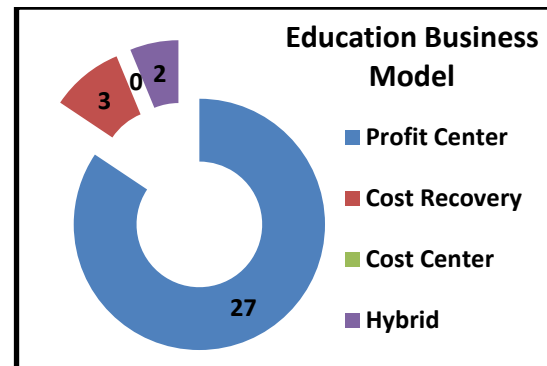
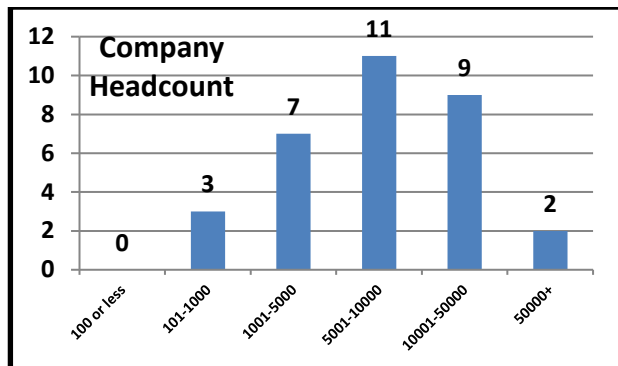
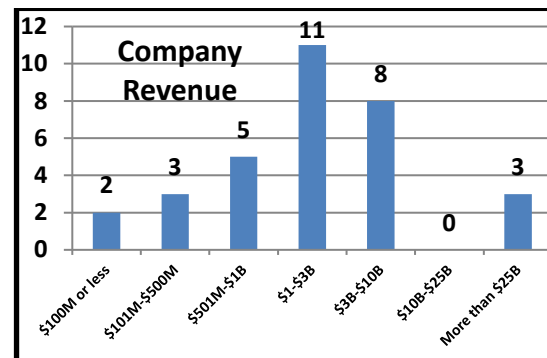
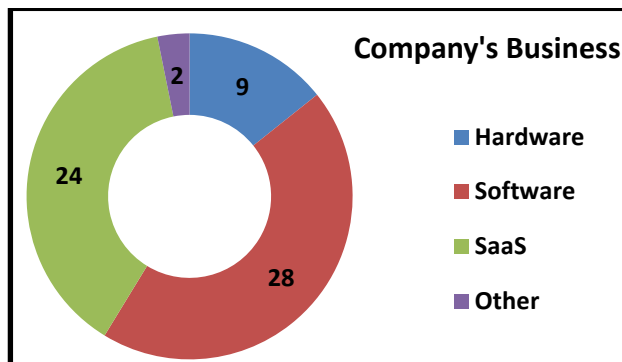


CEdMA Europe Market Barometer 3rd Quarter 2017

Introduction

This report is compiled by CEdMA Europe for its members from input for their EMEA businesses. It is based around a series of absolute growth or decline percentages in the range $\pm 12.5\%$. Revenue refers to training services delivered in the quarter and not future bookings. Note that in this report, u/f/d is the number of members reporting up/flat/down, respectively. This report for 17q3 actuals is based on input from 32 companies.



Changes to the Barometer

In response to member suggestions, we have changed the survey in the following ways from 16Q1:

1. We only collect data about the quarter just ended, not the "current" quarter
2. All questions ask about revenue, not some about volumes
3. We ask about the major modalities such as ILT, VILT and eLearning, plus additional services.

Summary

The unweighted average uses all responses as entered, whereas the weighted average uses the size of the revenue, taking the relevant education value, so larger companies have a bigger impact.

These growth observations are weighted and based on trendlines of 4-period moving averages.

Total Revenue is defined as all recognized revenue. Having been down to negative 2% in 2014, it recovered to positive 2% increase in 2016, and is now holding at 2%.

Operating Profit is revenue minus all fixed and variable costs, excluding allocations, divided by revenue. It has recovered from a low of negative 2% during 2013 to a 2% increase in 2016, and is now holding at 2% in 17q3.

Live Classroom (ILT) is all revenue when the instructor is in the same physical location. It fell to negative 2% during 2014, recovered to flat in 2015, but is now showing a 2% decrease.

Virtual Classroom (VILT) is all revenue for instructor-led training via the web, with or without virtual labs. It dropped from 6% during 2013 to 1% in 2014 then 3-4% in 2016 but is now back to 2%,

Public (scheduled) classes is revenue for ILT and VILT and now showing negative 4%, having been flat during 2015 but negative 3-4% in 2014.

Private (one-customer) classes is revenue for ILT and VILT, and showing an increase of 2-3%.

Self-paced is all revenue generated by training students without instructors, such as eLearning, video, and can be paid per use or by subscription. It's now showing an increase of 6% having been as low as negative 4% during 2014.

Certification is all revenue for certification business, such as exam fees and exam prep services, but excluding any exam prep training which is accounted under ILT/VILT/self-paced. The trendline is now only 1% increase, down from a high of 4% in 2014-15.

Learning Consulting is all revenue generated by non-training education business like learning needs analysis, customization of material assessments, and mentoring/coaching after training. There was a decrease of 2.2% in 16q1 but after small increases in subsequent quarters, it dipped to negative 3.7% in 17q3. It's trending at negative 1% over the last four quarters.

Learning Technologies is all revenue generated by learning tools, infrastructure, courseware and directly related training and learning consulting for these technologies. After increases of 3.6% in 16q1 and 6.3% in 16q2, subsequent quarters have been either just above or below flat. The trend is flat.

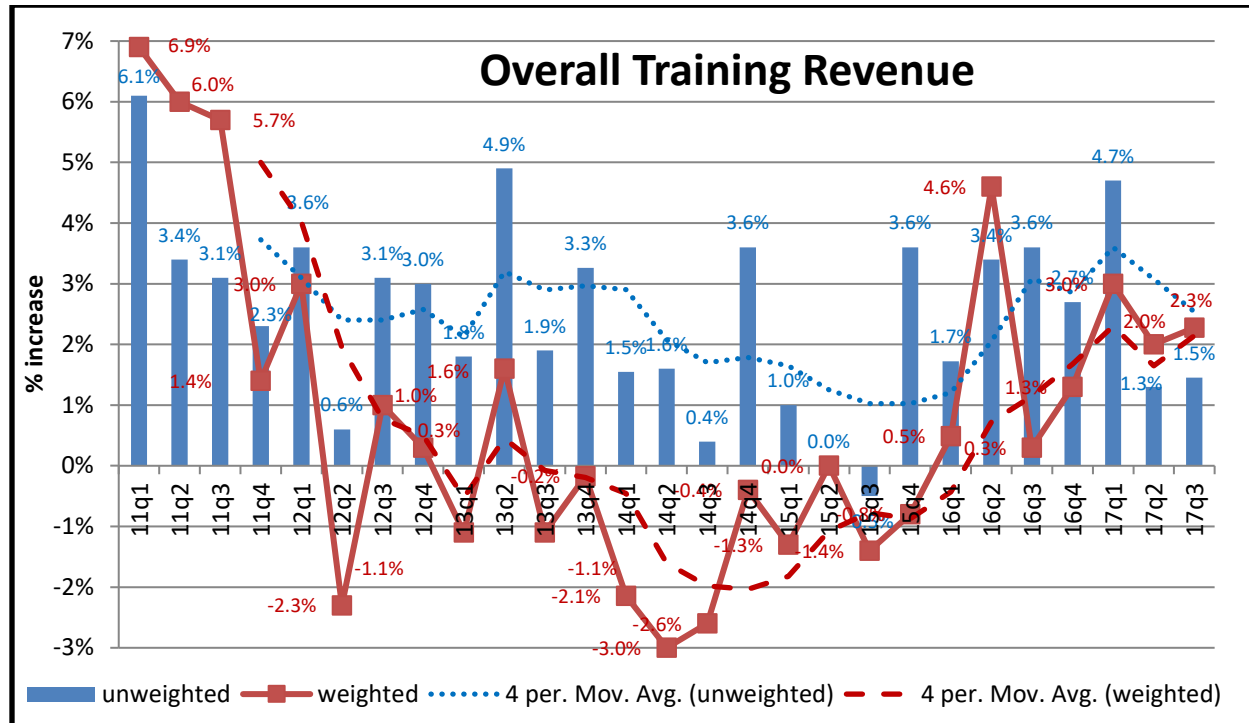
New Learning Modalities is all revenue for social learning, gamification, microlearning, mobile. There have been increases averaging just under 8% in 2016, with 9.4% in 17q1, but down to 0.9% in both 17q2 and 17q3. However, over four quarters, the trend over four quarters is still 5%.

Subscriptions include all revenue from any of the above modalities included in subscriptions.

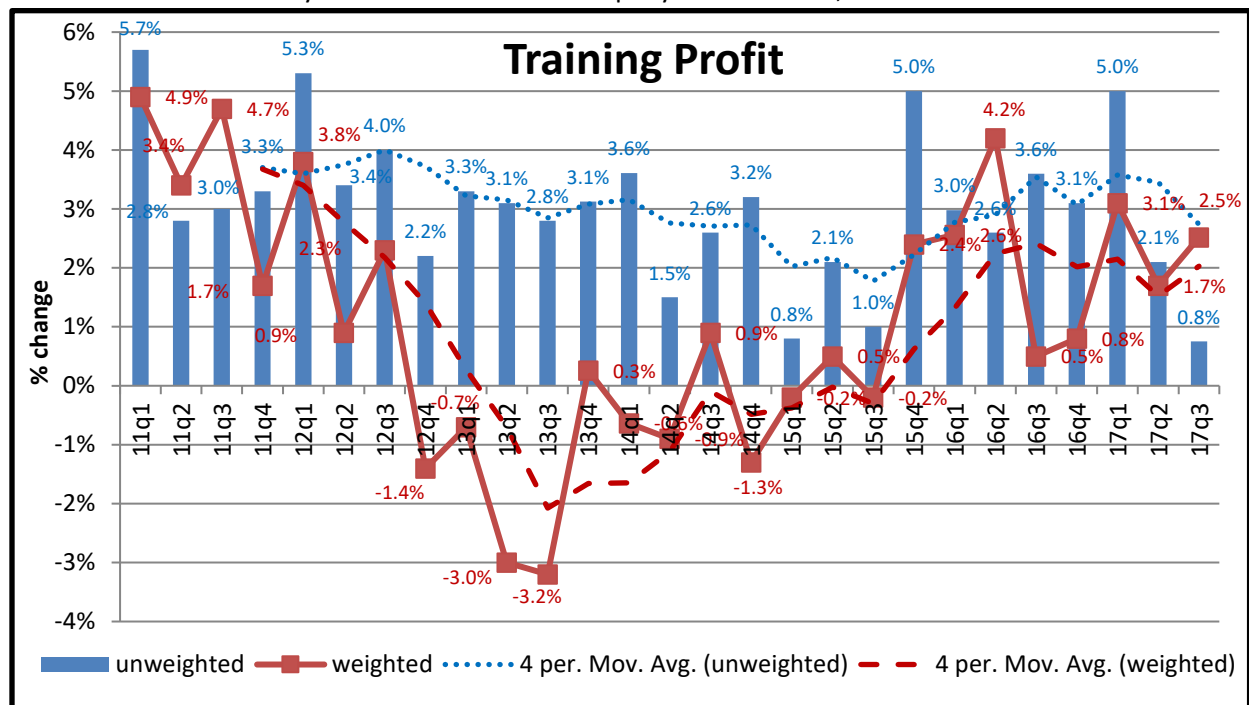
Subscription revenue has grown on average 8% during 2016, 17q1 was 6.1% increase, but this fell to 1.7% in 17q2 and 1.3% in 17Q3. However, the trend over four quarters is still 4%.

Training Revenue and Profit

The unweighted total training revenue increase was a 1.5% in 17q3 (u=15, f=5, d=11). When considering the weighted numbers, it was 2.3%. The unweighted trendline shows an ongoing increase of 2-3%, but when size of company is considered, it's 2%.

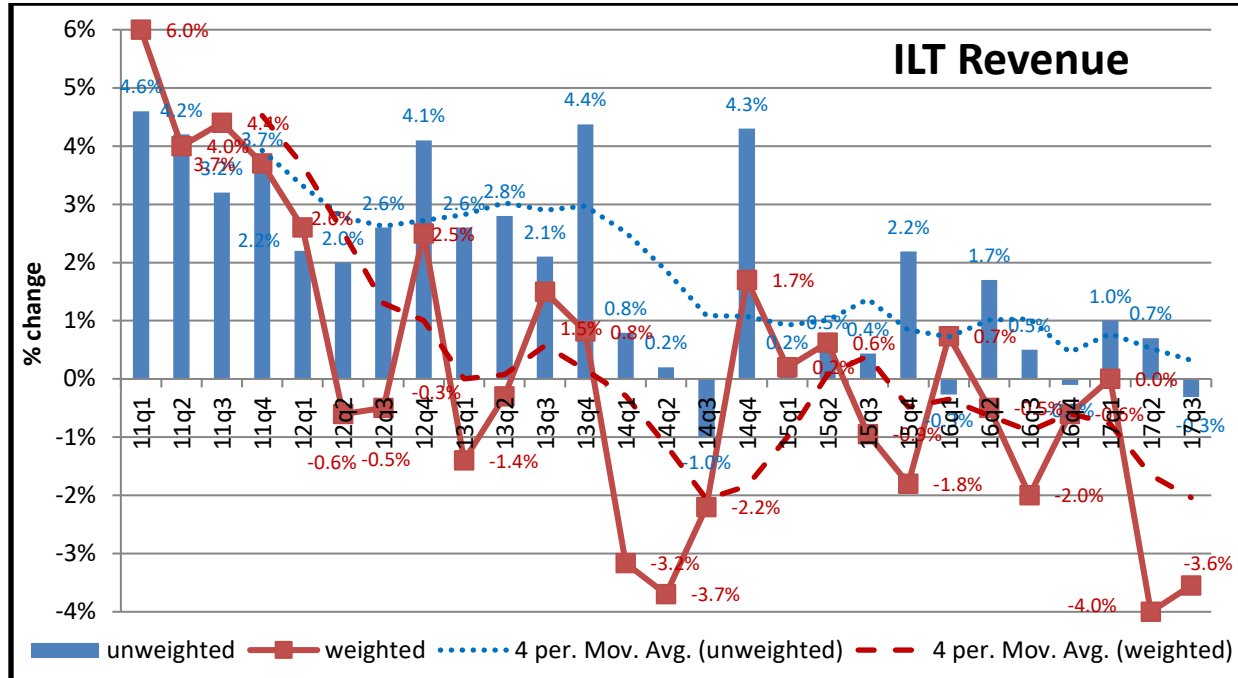


The unweighted total training profit grew 0.8% in 17q3 (u=14, f=9, d=7). And, with the weighted numbers, there was an increase of 2.5%. The unweighted trendline shows an ongoing profit increase of around 3% over the last year but when size of company is considered, it's 2%.



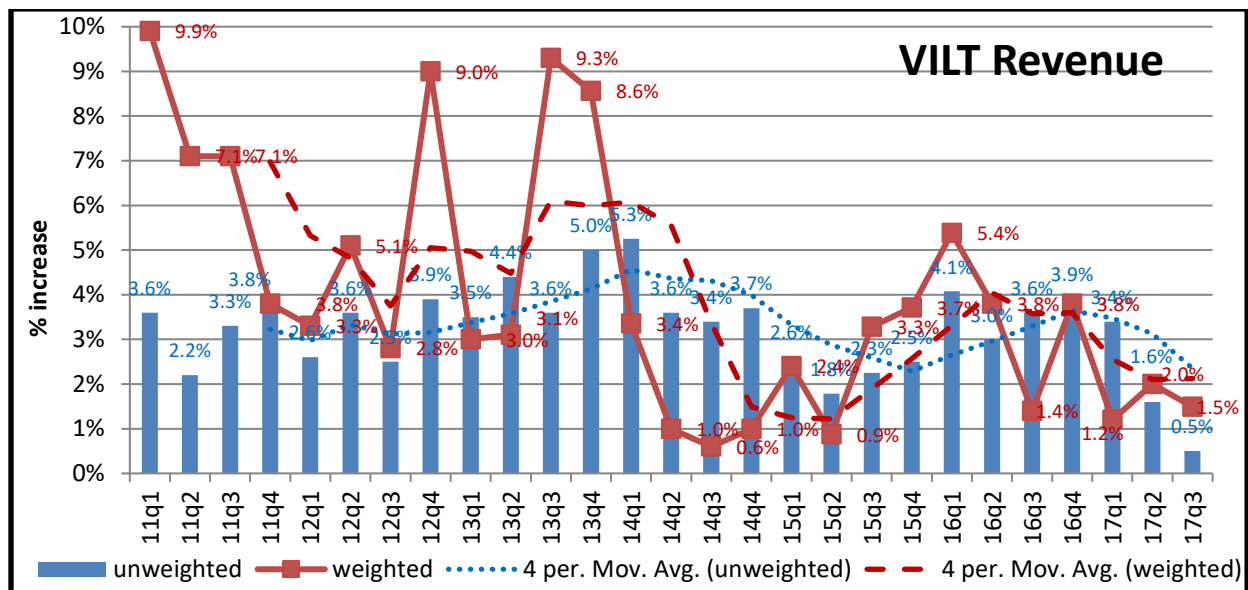
Live Instructor-led Training

This chart below suggests that ILT **revenue** for the larger companies has been the main cause of lower overall training revenue increases. The unweighted 17q3 decrease was 0.3% (u=11, f=10, d=11) but the weighted number was negative 3.6%. The unweighted trendline shows ongoing ILT revenue as flat, and when size of ILT revenue is considered, it is negative 2%.

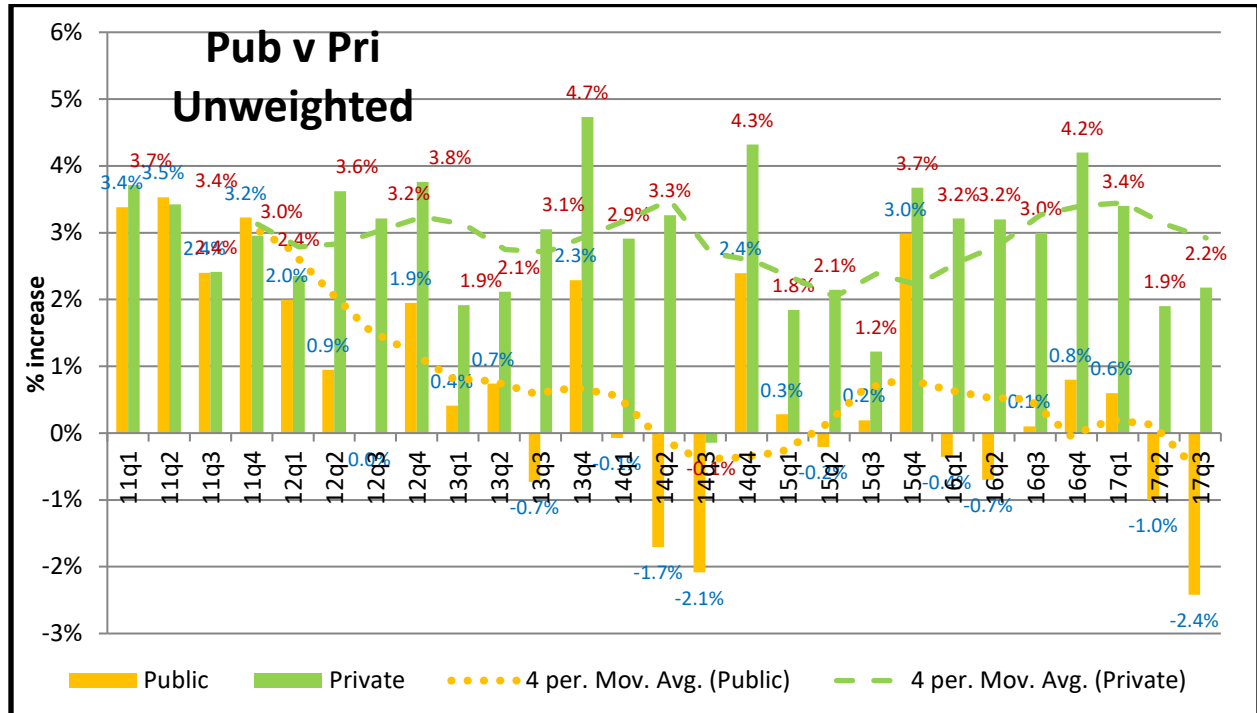


Virtual Instructor-led Training

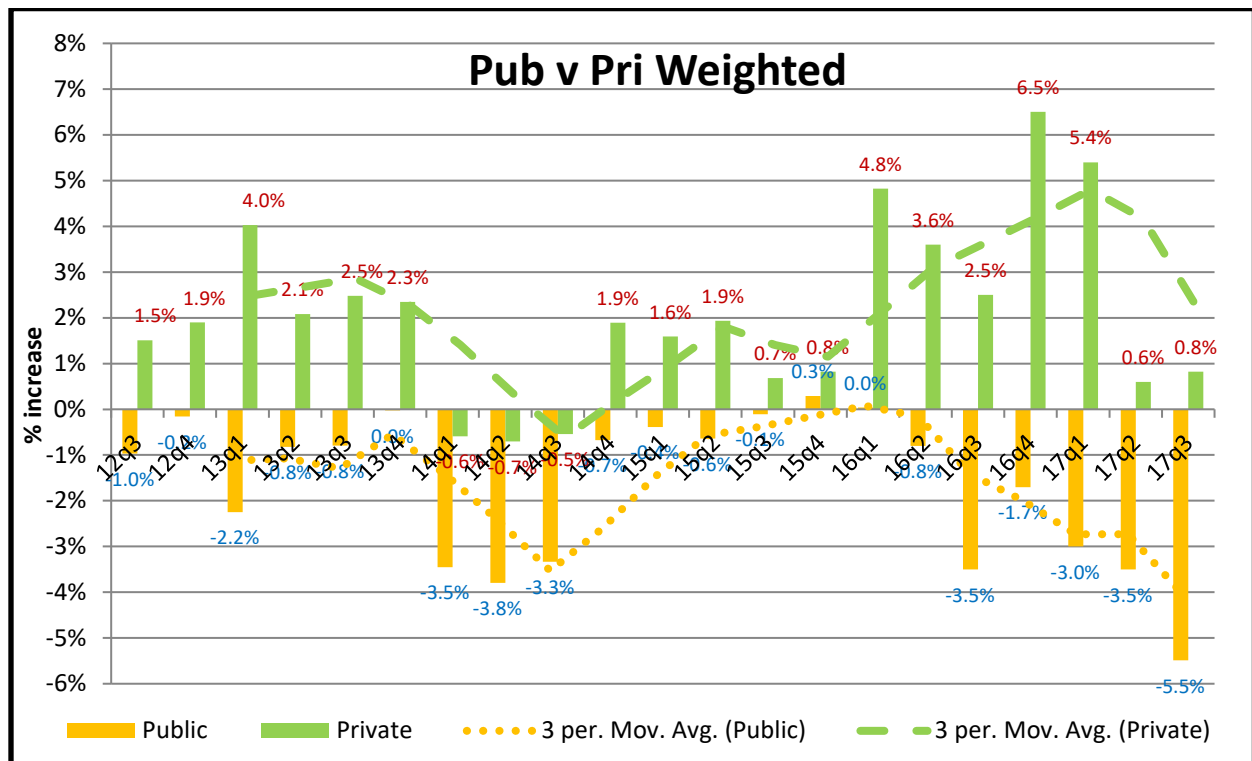
On the other hand, the VILT increase fell badly in 2014 but recovered. The unweighted 17q3 **revenue** increase is 0.5% (u=11, f=10, d=9) and the weighted increase is 1.5%. The unweighted trendline shows an ongoing VILT increase of 2-3% but when size of VILT revenue is considered, it was 3-4% in 2016 but has fallen now to 2%, having been from 1% in 2014. Note that 2 of the 32 don't use VILT.



We are now asking you to forecast both public (u=8, f=7, d=17) and private (u=17, f=8, d=6) classes and have enough history to show that private classes show a consistent steady **revenue** increase of around 3%. Public classes have again dipped to below flat **revenue**. This shows unweighted values.

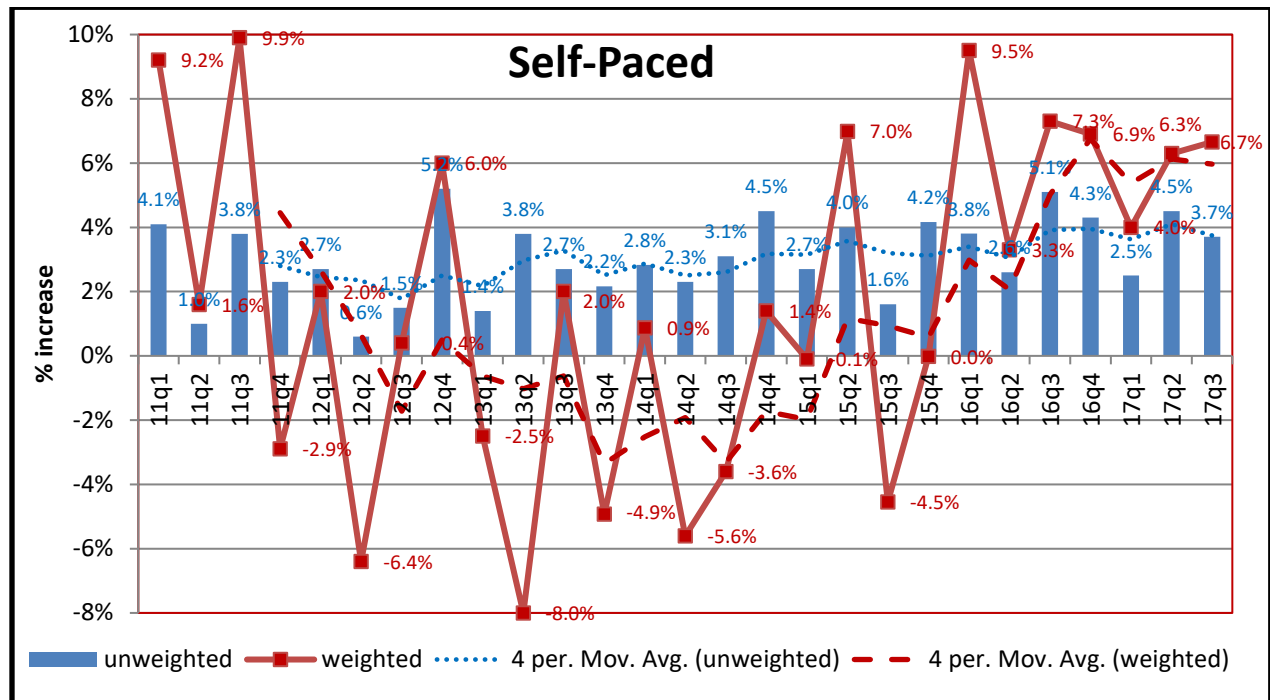


When weighted values are used, the **revenue** increases for public have dipped to negative 4% with private dropping to a 2-3% increase.



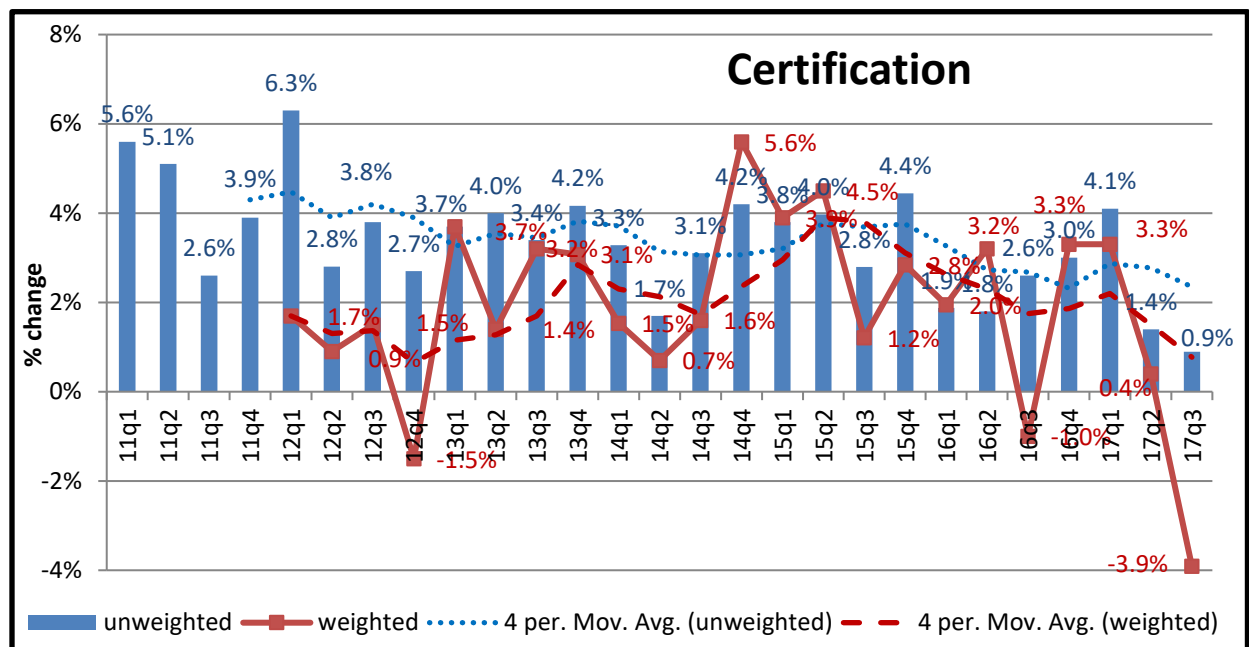
Self-Paced

The results for 17q3 (u=20, f=6, d=3) were 3.7% increase unweighted and 6.7% increase weighted. This shows how large projects in larger companies can have a significant effect on these averages. The 4-period moving average shows a 4% increase for unweighted and 6% for weighted. Only 29 reported.



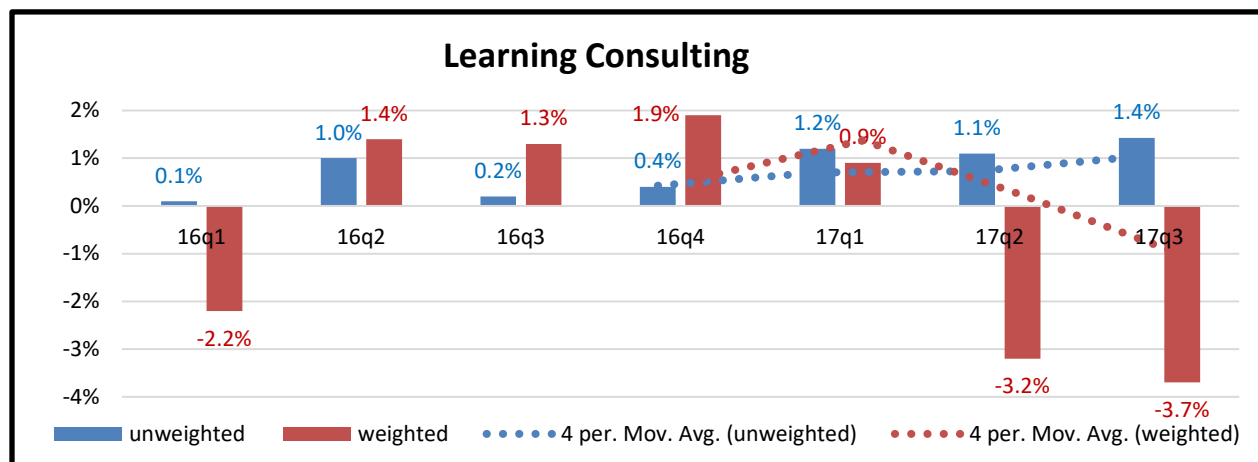
Certification

Overall, certification has averaged an increase of around 3% year-on-year when unweighted. In that four-year period, the weighted scores grew from a 1% to 4%, too, showing a resurgence in the larger companies, but has now fallen back to 1%. The **revenue** increases for 17q3 (u=9, f=12, d=7) are 0.9% for unweighted but negative 3.9% when weighted. 28 out of the 32 companies offer certification.



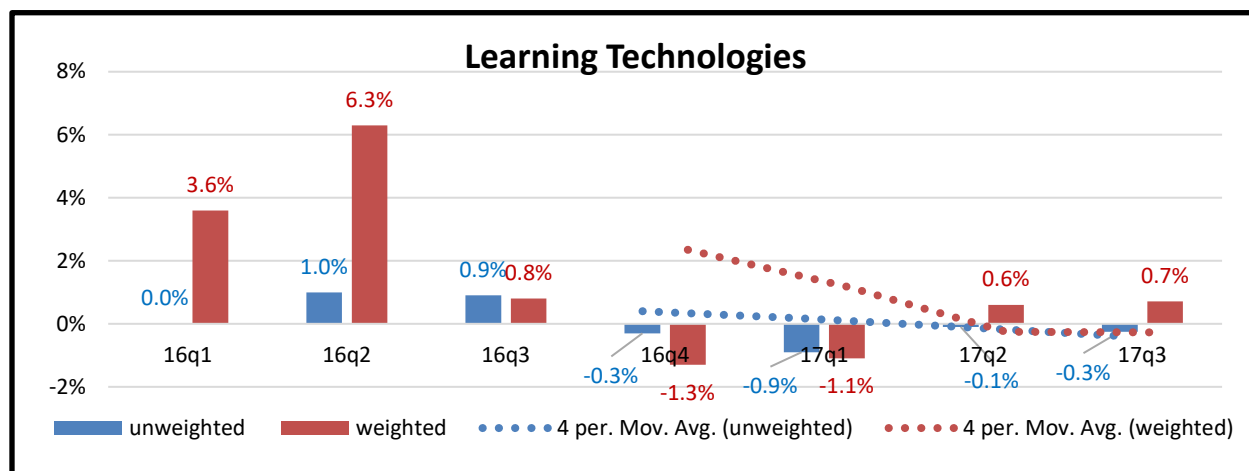
Learning Consulting

Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	18	4	11	3	0.1%	(2.2%)
16q2	18	6	9	3	1.0%	1.4%
16q3	22	5	12	5	0.2%	1.3%
16q4	20	5	11	4	0.4%	1.9%
17q1	19	5	12	2	1.2%	0.9%
17q2	19	7	9	3	1.1%	(3.2%)
17q3	21	6	13	2	1.4%	(3.7%)



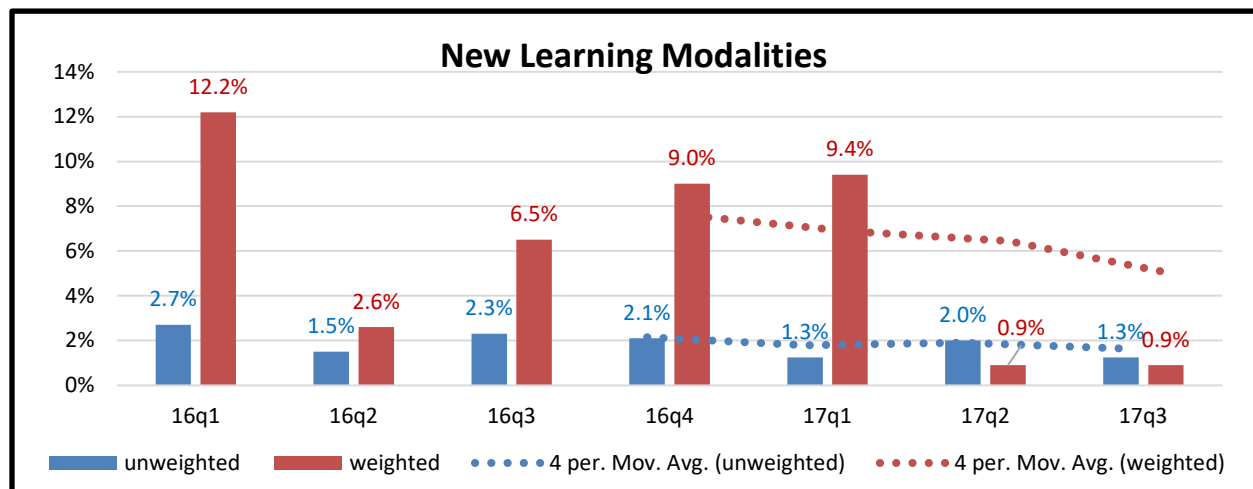
Learning Technologies

Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	16	2	12	2	0.0%	3.6%
16q2	17	2	14	1	1.0%	6.3%
16q3	20	3	15	2	0.9%	0.8%
16q4	19	1	17	1	(0.3%)	(1.3%)
17q1	19	1	16	2	(0.9%)	(1.1%)
17q2	19	2	16	1	(0.1%)	0.6%
17q3	20	2	16	2	(0.3%)	0.7%



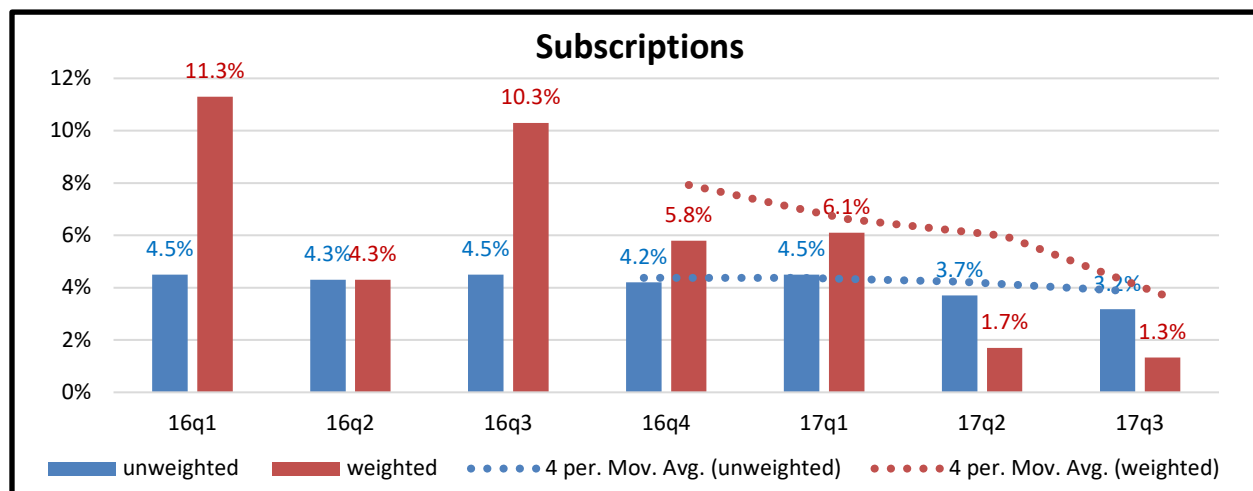
New Learning Modalities

Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	15	6	9	0	2.7%	12.2%
16q2	17	4	13	0	1.5%	2.6%
16q3	20	6	14	0	2.3%	6.5%
16q4	19	4	15	0	2.1%	9.0%
17q1	19	4	15	0	2.1%	9.4%
17q2	19	5	14	0	2.0%	0.9%
17q3	20	3	16	1	1.3%	0.9%



Subscriptions

Period	# responses	# up	# flat	# down	unweighted	weighted
16q1	20	10	10	0	4.5%	11.3%
16q2	20	9	10	1	4.3%	4.3%
16q3	24	11	11	2	4.5%	10.3%
16q4	23	13	6	4	4.2%	5.8%
17q1	24	12	11	1	4.5%	6.1%
17q2	23	11	12	2	3.7%	1.7%
17q3	25	11	13	2	3.2%	1.3%



Which subject areas saw the biggest increases in your training revenues in the last 3-6 months?

1. End User Training
2. Programming
3. Virtual training delivery
4. On-demand learning subscriptions
5. Private courses are accounting for our growth - we won a large contract which is helping the numbers! Normally the split between public and private is 50/50 but this year it 70/30 with 70 as private courses
6. WorkForce Management - Cloud based
7. Networking
8. Public Schedule
9. New self-paced offerings - not subscription based
10. They remain as follows: New product and solutions training increase in customer and partner related projects; Partner training - this does not necessarily come with revenue
11. Pretty flat, but a few more private on-sites events than previous quarter
12. Hybrid training events (v/ILT). New course releases
13. Robotics
14. elearning and certification
15. On-site Private ILT. Continuation of deals for 3 Clients
16. No particular increase in specific subject areas. Just more seats overall
17. Custom Learning Projects
18. Learning Enablement Tool/technology & Education Consulting
19. eLearning subscriptions growing in Q4 FY17 again. We just started subscription model in Q3 FY17 and see a growth in Q4 FY17
20. Public Virtual Training
21. ILT
22. Onsite delivery
23. Training Subscription and Onsites Classes
24. Apache Spark
25. Automation and Devops
26. Networking, Storage
27. Citrix on Microsoft Azure
28. Cloud Database technology
29. some self-paced activities
30. Async training
31. Big Data

Which subject areas saw the biggest decreases in your training revenues in the last 3-6 months?

1. Live ILT
2. Old technology courses
3. Public classroom training
4. Public scheduled ILT
5. Public classroom

6. Premise based
7. Consulting
8. eLearning
9. Subscription based portal
10. Public schedule live classroom based down again
11. Standard classroom. Particularly across UK market
12. Methodology
13. Internal Training - thankfully.....
14. Public
15. Service Management still a decline
16. Open enrollment
17. In Center public classes; Learning Programs started to ramp up slowly due to less large roll out projects.
18. Public Classroom Training
19. Internal training
20. Design courses
21. Architecture/design courses - these are old and still to be updated
22. Industry specific courses
23. Public training (online) and certification - partner training drove this.
24. Public classes
25. Certifications

What were the two greatest challenges you faced in running your business in the last 3-6 months?

1. Changes to the compensation model for license sales that no longer comps Sales on training.
2. Low UK seats
3. Decreasing net new license business; less customer budgets
4. Reduction in public class fill rates. Public class scheduling in order to maximise profitability
5. Trying to get additional headcount; Resourcing requests
6. Partner fees; Revenue through product attach - and reduced product sales
7. Attach & declining certification training
8. Lack of resources; Inability to be agile
9. Lack of net new sales in UK
10. Training attachment to product deals; Threat from growth in Managed Services delivered by Professional Services which reduce opportunities for customer training - requires exploration/investigation.
11. Internal re-org of OMC Product Sales and alignment with CX business has de-focused sales
12. Finding and embedding new sales team members. Developing and launching a viable subscription based product offering.
13. Engaging the product sales team in selling training credits.
14. Time taken to design and implement new self-study courses; Getting more customers to take up online mentoring to support self-study
15. None: stable to increasing business
16. Continued profitability through summer period despite shut downs in major European markets. Increasing demands from Clients on Security and penetration testing on software (demanding external validation).
17. Again, same as last quarter: Getting the acceptance of customers of virtual classes instead of in-class; Finding contractors to grow delivery scalability

18. Hiring People; Attach to Licences low
19. Some clients deferring larger orders (budget constraints) and more inclined to go piecemeal.
20. Training program delays impacted by delayed customer go-lives or postponed budgets; Low price competition in territory markets (France and Germany) continues to be a threat
21. Selling training into accounts that already have "free" education entitlements.
22. Hiring; And hiring again!
23. Regional language support; A growing SMB market
24. Finding and hiring new training BDMA's; Get services Operation to work pro-active; get the right level of support from our Outsourcer
25. Gaining mind share of product sales people; Company changing and reinventing product names so confusing to customers and staff what is what
26. Partner performance is down significantly; Largest customers delayed system refresh/expansion
27. New course releases and impact to the business; Free of charge training given away
28. Move from on-premise to cloud business model
29. Decreasing backlog
30. Attach rates not in alignment with new business; Continued lack of focus on public training.
31. Getting license sales to include training offerings in proposals; Quality content of courses.

Please add any other comments or observations you have on the state of the IT training market

1. Some areas are moving to VILT, with more demand from EMEA than previously
2. Very competitive
3. Flat as per forecast on revenue and margin for EMEA
4. Revenue is no longer a driver for me - student days is the measure I use now.
5. Online self-study training became free to all users from June 2017.
6. Increased use of subscription and/or OnDemand/Self-Paced - leading to opportunity to provide online mentoring sessions.
7. More customers are looking to deliver their training themselves through a Train the Trainer program. IP protection is a concern. Customers in EMEA accepted to use Digital Guides the default delivery mode. Customer requesting more virtual offerings or blended approaches. Digitilization and gamification becomes a main part of new learning approaches
8. Released Virtual On-Demand Training (Live Labs, with recorded lessons)
9. Modular / pay as you go model becoming more prevalent.
10. Our Learning subscription continues to be on high demand
11. Very tough quarter in Q3 YOY but Q4 is bouncing back with good growth and positive outlook for the end of year and start of 2018
12. Q4 looks to be up year over year but all other quarters are down.
13. Customers seem to be more cautious with end of year budget spend. Seeing less customers valuing training credits.
14. Move to cloud and subscription brings means customers are unsure of strategic direction; this postpones training decisions.